

WESTLAND-SIKORSKY S-51



LOOKING back is no bad thing, for despite what happened to Mrs. Lot those who look back and survey the past may be vouchsafed some preparation for what to expect in the future; not perhaps in physical shape but at least in the maintenance of a tradition or creed. Taking a brief glance back over the past three decades of Westland history, one can pick out such names as the Dreadnought postal monoplane, the Pterodactyls, the C.O.W.-gun fighter, the F7/30 four-gun shaft-drive fighter, and the Lysander, Whirlwind and Welkin. All these were aircraft which exemplified a good deal of forward thinking, and this is a quality which Westlands have had as an inherent part of their make-up ever since the firm's inception. And it is as a result of this attitude that the company decided to build under licence the Sikorsky S-51 helicopter.

Rotary-wing aircraft are not novelties at Yeovil. In 1934 the C-29 Autogiro was built there in conjunction with the late Señor Juan de la Cierva, and this was followed by the CL-20 which provided an advanced degree of comfort in a neat two-seat side-by-side cabin, and exemplified, perhaps, the most refined state to which the Autogiro was developed. The war, however, ended its career, as it did that of so many things.

With the business of war over, Westlands once more devoted their thoughts to rotary-winged flight and came to the conclusion that their best course lay in undertaking the construction of an already proven design. The Sikorsky S-51 was the only available type capable of any real degree of commercial operation, and thus they made this aircraft their choice.

We take no inconsiderable pleasure in being able to record that the relationship between the United Aircraft Corporation and Westlands has been extremely cordial. So much so, in fact, that if the spirit in which these negotiations have been conducted were to pervade the field of international politics, the present miasma of world troubles

Anglo-American Rotating-Wing Effort : British

Built U.S. Design with British Engine

would evaporate like morning mists.

The English S-51, which will have the joint surname of Westland - Sikorsky,

will differ from the American original only in minor detail, that is, with the exception of the engine. Further, as full reciprocity is implicit in the agreement between the two companies, any design advances made in this country will be given to United Aircraft, and any American developments will likewise be forwarded to Westlands.

Detail changes in the English production are a result chiefly of the incompatibility of material specifications. To substitute our own specifications for the American has not, however, entailed any penalty on the score of weight or strength, although it has, of course, necessitated the structure being check-stressed.

To avoid having to re-execute all the working drawings supplied from America, some 2,700 in number, these have been subjected to careful review, and any design details necessitating alteration according to British materials and accessories have been incorporated in addendum sheets; each of these is then attached to its appropriate drawing and issued to the shops. This scheme is working well, and no difficulty is experienced by the British workmen in reading drawings employing American projection.

In common with the production versions of the Bristol 171, a description of which appeared in the October 30th, 1947, issue of *Flight*, the Westland-Sikorsky will employ an Alvis Leonides 500 b.h.p. horizontally mounted helicopter power unit in place of the American Pratt and Whitney R985B4 engine. This change will give the S-51 an increase of 50 b.h.p., which is no small advantage.

Before going on to appraise the machine, we might conveniently at this point pause to review the salient features of the Leonides helicopter engine. It is, of course, fundamentally an orthodox air-cooled radial engine, but in fitting it for operation, when installed with its shaft axis vertical, detail modifications have been necessitated. Two main